

**Before the
Federal Energy Regulatory Commission**

Capacity Markets in the PJM Region
PJM Interconnection, LLC, *et al.*
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Docket No. PL05-7-000
Docket No. EL03-236-000
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**Comments of Elizabeth Anne Moler
Executive Vice President of Exelon Corporation
On the PJM Reliability Pricing Model Proposal
June 16, 2005**

Exelon appreciates the opportunity to participate in the Commission's Technical Conference on the important issue of ensuring that generation capacity remains adequate to serve future loads. Exelon serves more than 5.1 million retail customers in its Commonwealth Edison service territory in Chicago (3.5 million customers) and in its PECO Energy service territory in Philadelphia (1.6 million customers). Exelon Generation owns or controls approximately 33,000 MW of generation, of which approximately 26,000 are in PJM. Exelon is responsible for constructing and maintaining a reliable transmission and distribution system to ensure that these loads can gain reliable access to electricity supplies. We are vitally concerned about maintaining a reliable system, both today and in the future.

In Exelon's view, planning now for adequate generation and transmission resources for the long term is essential to maintaining system reliability within PJM. Ensuring that price signals are transparent long enough in advance to allow for long-term planning is key to optimizing system reliability using new and existing generation, transmission, and demand side responses. Long-term issues need to be addressed now, not when a capacity shortage is upon us.

Exelon supports PJM's Reliability Pricing Model (RPM). Exelon believes that the proposed RPM balances all stakeholder interests – load, generation, demand side response, and transmission. The RPM proposal is a comprehensive approach to resource adequacy that will result in efficient, stable and predictable prices for needed generation capacity, including both existing and new capacity, and in specific locations, within PJM.

While we support RPM as a whole, I want to emphasize our view that the critical missing element in PJM today is a requirement for a forward procurement process for generation. We believe that a long-term forward procurement requirement is the single most important element of the RPM.

We have heard that the Commission is looking for a further compromise on the elements of the RPM. In our view, the long-term forward procurement requirement should not be dropped in any attempt to develop a compromise or reach a consensus on the RPM proposal.

Importantly, the RPM integrates PJM's Regional Transmission Expansion Planning Process (RTEP) so that generation and transmission are put on an equal footing in determining the most efficient solution to maintain system reliability. The RPM encourages load management, retains the capacity resource deliverability requirement, supports retail access programs, accommodates contracts and bilateral supply, and includes market mitigation.

Exelon believes that addressing resource adequacy is an urgent matter. While there are currently sufficient capacity resources across the PJM Region as a whole, new transmission and generation resources require long lead-time to be built. The existing capacity market design has already proven insufficient. Capacity prices are too low to prevent the retirement of generation that is critical for reliability or to attract new generating capacity to replace such units in timely fashion.¹ And even when new generation is announced, the current process does not provide certainty about whether a new generator actually will be built or when it will come on line. The result is that PJM must build transmission to compensate for the anticipated retirement of needed generation. This is not necessarily the most economically efficient or optimal solution. Building transmission is a lengthy process, and can be inefficient and disruptive to effective long-term transmission planning when required in response to an unexpected generator retirement.

If the market does not provide incentives to attract needed new generation capacity far enough in advance, Exelon is concerned that these localized reliability issues will become more widespread.

Under the current capacity rules PJM has no solid information about what generation will retire and when, or about what new generation actually will be built in the next few years. PJM's current market rules allow loads to purchase capacity on a day-ahead basis, and generation to retire with only 90-days notice. And PJM has no authority to order anyone to invest in new generation. These rules limit PJM's ability to ensure long-term reliability. To plan and operate a reliable system, PJM must know what generation will be available to serve existing and future needs and must have sufficient time to react if information reveals that future generation is not expected to be adequate to ensure reliability.

¹ It is reasonable to expect in an over-built market that older, less-efficient units will retire. But some older units are needed for reliability, due to their location or operating characteristics. The market design that allows such generation to retire must at the same time send correct price signals to provide the necessary incentives to attract new generation

The four-year advance period for resource commitments and price signals in the RPM proposal are crucial improvements over the existing capacity market. The need for a forward commitment is clear. It addresses the need to give generators an incentive to build sufficient generation to satisfy the Installed Reserve Margin requirement while simultaneously addressing the need to expand the transmission system where and when it is necessary to ensure that all areas of the PJM region are reliable.

There are several benefits to RPM that would be diminished or eliminated without the forward procurement feature:

1. Forward procurement allows much better integration of PJM's resource adequacy plans and its transmission planning process (the RTEP). Moreover, sufficient lead-time allows for a market comparison of the generation, transmission or demand response alternative solutions to address reliability concerns.
2. Forward procurement provides price signals on the value of capacity with sufficient lead-time to enable the development of new capacity, transmission, or alternative demand side responses by the time it is needed.
3. Forward procurement enables developers of new generation to participate in the capacity market and to compete with incumbents.
4. Forward procurement allows generators that are retirement candidates to bid what it will take for them to stay open, and the timeframe ensures that retirements will be known well in advance.

In sum, adequate generation capacity and a robust transmission system are critical to ensuring reliability. The RPM, with its forward procurement feature in particular, is a superior market design that will provide more certain information to the PJM Regional Transmission Planning Process and price incentives to allow ongoing development of an optimal mix of generation, transmission and demand response to ensure continuous system reliability.

Comments on Specific RPM Features

a. Four-Year Forward Obligation

The four-year forward obligation is a critical element of the RPM. Exelon believes that the fundamental objective of the RPM is to ensure that the planning reserve margin is met in each and every year, in each and every location, in the most efficient manner. New generation does not simply appear by magic. In a market environment, the incentives to build need to be clear. The generation

boom and bust cycle we have experienced over the past decade has made developers very, very wary of committing to new projects without some form of financial certainty. And banks simply will not lend the millions of dollars necessary to build generation in an uncertain regulatory environment. That is why we need a forward capacity procurement requirement.

The best way that PJM can accomplish this objective in a market environment is to use a forward commitment process that allows sufficient time for new generation entrants to submit a competitive offer, be committed through the auction, and subsequently to build in time for the start of the delivery year. Exelon believes that incorporating forward procurement in PJM's RPM will be a significant improvement that will permit new entrants the realistic opportunity to bid sufficiently far ahead to have time to build. Under forward procurement, if a new resource is needed to meet the planning reserve margin, the most competitive offer from a planned unit will clear the auction. The planned unit then has four years – as opposed to one day -- to complete construction and be able to deliver when the capacity is needed.

Similarly, adding a forward procurement process will allow a retirement candidate with relatively high “going forward costs” to bid to “commit” to continue providing service in the future. Again, if the unit bids cover the cost of continued operation, and that unit clears in the auction, then PJM knows that the units will be available for service in that future year to meet the reliability needs.²

A market design that as a practical matter precludes new entrants or retirement candidates from bidding to serve load in the future is ignoring potential economic resources and thereby may be failing to optimize the mix of resources needed for system reliability. Forward procurement allows PJM to satisfy the planning reserve margin at the least cost and is critical to ensuring reliability and maintaining robust wholesale competition.

Under the forward procurement model, PJM commits to suppliers to purchase capacity to serve the aggregate projected load each year for four years in the future. Retail suppliers that choose to self-supply may do so and may commit to PJM for those years the amount they choose to self-supply. Retail suppliers in competitive markets whose loads may vary from year to year pay only for load they actually serve during the year of delivery. Thus retail suppliers are not obligated to buy supply they do not need because of “load switching.” PJM allocates capacity payments to such entities based on the load that they actually serve in the delivery year. Large retail customers also will have the option of bidding to self-supply, of offering a demand response, or of relying on PJM's purchases for their future needs.

² Additionally, financial obligations imposed on all resources that clear in the auction provide strong incentive for resources to satisfy their commitments or to find replacement resources that can substitute to satisfy their commitments.

While Exelon would prefer an even longer forward commitment period, Exelon supports the four-year forward procurement process as a compromise that fairly well integrates the market with PJM's five-year regional transmission planning process to satisfy reliability criteria. Holding the centralized capacity auction four years forward will provide a valuable information feedback loop to inform the regional transmission planning process. If the market does not clear sufficient capacity (including reserves) in a location to maintain reliability, then the regional planning process will require a transmission upgrade in that location.³ Today, in contrast, PJM is forced to plan the system without advance information about what generation will be available, since generators are permitted to retire with only 90-days notice. Likewise, it is difficult for anyone – the market or PJM -- to respond without advance information, since both generation and transmission require lead time in order to be put in service. Providing that lead time by means of forward procurement will allow a real comparison of the cost of incremental generation capacity with the cost of transmission upgrades and the cost of practical demand responses. This will lead to the best choice between transmission and generation and will allow load to plan for economic demand response as well.

b. Variable Resource Requirement (Demand Curve)

Exelon believes that the Variable Resource Requirement, or demand curve, provides an orderly transition from periods of relative supply excess to periods of relative supply shortage and results in a more stable, predictable price for capacity. A properly established demand curve will reduce price volatility while at the same time help ensure revenue adequacy to capacity resources. The RPM will create more stability in pricing and a more reliable system.

The current capacity market design results in very high capacity prices when supplies are less than the Installed Reserve Margin (IRM) and very low capacity prices when the supplies are greater than the IRM -- i.e., a "boom-bust" model. Current price signals are erratic, volatile and short-term. Further, the price can change rapidly, with little warning, in the case of sudden retirements. Market participants simply do not have time to respond to the price signal with new generation or transmission enhancements in a timely way.

In contrast, the market trial simulations run by PJM using a demand curve show relatively low prices in periods of excess supply and gradually increasing prices as the simulations model a greater need for supply. Load benefits from this predictability and stability in prices. Similarly, both existing and planned generators benefit from having a clear signal with which to plan and make business decisions. A properly established demand curve provides incentives for new generation when it is needed and encourages the efficient retirement of

³ This of course assumes that there is sufficient generation in PJM as a whole to meet the required IRM.

existing resources when they are not needed. In addition, reduced risk for generation investors will lower capital costs and should result in lower prices for consumers while meeting reliability needs more consistently.

c. Price Differentiation Based on Location

Price differentiation based on location is essential to ensure reliability in all areas of the PJM Region. PJM Staff has presented much evidence of near-future localized reliability concerns that will need to be addressed while at the same time the PJM region as a whole has sufficient capacity resources to meet the IRM for the region. Clearly, a region-wide market is no longer sufficient to ensure local reliability and capacity prices should reflect that reality. The RPM proposal addresses this by creating a locational capacity market that sends an appropriate price signal when local resources are needed. Again, price signals and commitments will be established well in advance of when the resources are actually needed, thereby allowing time for rational transmission planning and generation development.

d. Net Revenue Offset Concept

The Net Revenue Offset Concept is included in two aspects of the RPM proposal: 1) the demand curve, and 2) the market mitigation rules. As part of the demand curve, Exelon believes that it is appropriate to set the threshold value of the curve at the cost of new entry minus the system average historical net revenue. The goal of the RPM is to allow for a sufficient level of new entry cost that will provide adequate incentives to developers to build when new capacity is needed. However, the capacity payment is not the only source of revenue for capacity resources. Therefore, the capacity payment is essentially needed to cover the going forward costs of resources that are not covered by other revenues.

Regarding the use of a net revenue offset in setting the offer cap for resources in constrained areas, Exelon notes that even where no offer cap is required, rational bidders will submit bids that account for the resource's other market revenues. Essentially, the "penalty" for a resource owner that submits an irrational bid is a one-year forfeiture of capacity revenues, since such a unit will not clear in the market.

e. Payment of the Capacity Prices to New and Existing Generators

The RPM is a marginal clearing price market for capacity. It is well documented that a marginal clearing price market produces efficiencies and encourages competitive behavior. A marginal clearing price market does not and should not differentiate between new and existing generation for purposes of determining payment. The lowest offer made, whether from an existing unit or a new planned unit, should set the clearing price to ensure competitive behavior.

f. Inclusion of a Reliability Backstop

Exelon supports the inclusion of a reliability backstop auction for completeness of the RPM proposal, but believes that it is important to allow the RPM to work without undue intervention. Thus, triggering events for a reliability backstop should be set at a high hurdle. If the hurdle is too low, the backstop may be invoked prematurely, which would erode new entrant confidence in the annual auction process. The modifications proposed by PJM Staff to the RPM proposal provide that higher hurdle. Additionally, the modification proposed by PJM to extend the backstop auction to all resources and not just Base Load Generation Resources is important. A variety of generation resources can provide the reliability assurance sought by the backstop auction.

g. Inclusion of Long Term Demand Response

Exelon supports the long-term demand response in the RPM proposal. The RPM rules allow for the equivalent treatment of demand response and other capacity resource options by basing the demand response capacity payments on equivalent, unforced capacity values that give demand response options credit for their associated avoided capacity reserves. The RPM proposal also places performance requirements on demand response, similar to the performance rules in place for demand participation in the PJM energy market. Allowing demand resources to participate in the forward auction should enhance the competitiveness of the market.

Additionally, since not all demand response resources will be able to make a commitment four years in advance of the delivery year, the RPM proposal allows demand resources to certify as Interruptible Load for Reliability (ILR) three months in advance of the delivery year. This ability to declare ILR provides an offset to the Locational Reliability Charges that the load would otherwise be required to pay.

In treating demand response as a capacity resource on par with generators, the demand response capability must be available in the delivery year and must activate when PJM initiates a curtailment event. Exelon believes that a special exception for demand response to the application of deficiency charges is appropriate in a very limited situation. There may be instances when the demand reduction is not possible because the load is no longer in existence. In this instance, the demand response resource provider did not fail to maintain its capability, and the system is not harmed because there actually is less load on the entire system to be served. The effect of this situation is that the additional capacity is not needed. The proposed RPM rules accommodate such a situation. The proposed rules allow demand response resources relief from the application of deficiency charges if such resources can demonstrate that their inability to provide the level of demand response specified in their sell offers is

due to the permanent departure (such as plant closure, efficiency gains, or similar reasons) from the transmission system of load that was relied upon for load response in their sell offers. In this way, the proposed rules recognize that demand response is not the primary business of these resources.

h. Structure and Timing of the First Auctions

Exelon believes that the RPM should be implemented expeditiously. If some delay in the proposed auction schedule is required to accommodate the Commission's decision-making process, then Exelon recommends that the time between the transitional auctions be shortened so that the auction for the 2010-2011 planning year can be held as soon as possible.

Conclusion

The structure and efficiency of the PJM market, and the ability of the market to provide the right price signals to ensure adequate generation resources, are critically important to Exelon and our customers. The resource adequacy framework cuts across all of our responsibilities as both a regulated utility and a market participant. That's why I asked to speak today.

Exelon fully supports PJM's proposed Reliability Pricing Model and believes that its various components work together to significantly improve the present more limited capacity market. Exelon emphasizes, however, that the forward procurement component is crucial to integrating transmission, generation, and demand response planning for an optimally reliable and efficient system. The forward procurement component also will enhance the competitiveness of capacity markets by enabling new entrants and retirement candidates to participate in the capacity markets.

Exelon believes that criticism of the forward procurement model is misplaced. Load serving entities are not at risk for paying for capacity they do not need in the delivery year because of load switching, as some have claimed. Rather, PJM allocates capacity costs in the delivery year based upon load actually served. PJM is not likely to end up over committing for capacity by planning four years out. The forward procurement process includes an annual auction for capacity for a rolling four-year period. Incremental adjustments can be made during those annual auctions as load forecasts change. In conclusion, Exelon urges the Commission to encourage PJM to file its RPM proposal as soon as possible so that it can be approved and implemented without further delay.